

Name the type(s) of error listed in each scenario:

1) A SRS of all voters in PA concluded that 54% of voters will vote for Senator Arlen Specter in the coming election for the state senate seat. However when the election actually happened, the actual percent who voted for Senator Specter was 56%.

Random Sampling error

2) A polling company employs 40 pollsters to conduct phone interviews with potential subjects. One of the questions asked subjects to rate, from 1 to 5, how the President is doing so far. Jack (one of the pollsters) mistakenly thinks that a 1 is bad when it means good. He consistently enters the wrong numbers.

Processing error (non sampling)

3) The administration of the school wishes to know what percent of the students have cheated on an exam before. An assistant principal creates an SRS of 100 students from all the grades and calls each down to his office to ask the student if they have cheated on an exam that semester. He found that 99% of the students have not cheated.

Response error (non sampling)

4) The school board at a local high school is planning on implementing a new policy where elementary school children have to pass an exam at the end of each school year before they are allowed to move onto the next grade. They want to survey the opinions of the parents in the district. They want to send out a survey, and two versions of the questions are below.

Version 1- Should elementary school-age children have to pass high-stakes test in order to remain with their classmates?

Version 2 – Should schools and students be held accountable for meeting yearly learning goals by testing students before they advance to the next grade?

Wording of questions (non sampling)

5) A political candidate is interested in running for mayor of a large town. To see if he would succeed or not he has his staff randomly select a few blocks in the city to survey. The staff then head out in the morning and go to each house in that block to ask the residents if they would vote for the candidate.

undercoverage (sampling)

6) The administration of the school wish to know if parents would like to have an afterschool science program for elementary children. The school sends out 20,000 letters to the parents of elementary children. They receive 149 responses in which 128 said they would like to have the program.

nonresponse (non sampling)